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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/749,210	12/27/2000	Thomas R. Schmutz	6785-126	5286

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EXAMINER

LEE, JOHN J

ART UNIT	PAPER NUMBER
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2684

DATE MAILED: 08/01/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application No.

09/749,210

Applicant(s)

SCHMUTZ, THOMAS R.

Examiner

JOHN J LEE

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 December 2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☒ Claim(s) 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1 – 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Baker (US Patent number 6,469,984) in view of Wallace et al. (US Patent number 6,590,881).

Regarding **claim 1**, Baker discloses that in a wireless cellular communication system having a base transceiver station located within a home cell and a plurality of substantially adjacent cells each having a repeater located therein, a method for managing a plurality of mobile transceiver units, comprising the steps of:

receiving at one of said repeaters (102 in Fig. 1), a signal (112 in Fig. 1) from a mobile transceiver unit (101 in Fig. 1) on an uplink communication channel (Fig. 1, 2 and column 2, lines 30 – column 3, lines 18);

measuring at said repeater a power level of said signal (120 in Fig.1) as received by said repeater (Fig. 1, 2 and column 3, lines 8 – column 4, lines 36); and

transmitting a signal (114 in Fig. 1) from said repeater (102 in Fig. 1) to said base transceiver station (103 in Fig. 1) on a communication link (Fig. 1), wherein said signal is transmitted at one of a plurality of discrete power levels providing an indication of said

power level as measured by said repeater (Fig. 1, 2, 5 and column 3, lines 8 – column 4, lines 56).

Baker does not specifically disclose the limitation “a relay station transmits a backhaul signal to a base station/base controller on a communication link”. However, Wallace discloses the limitation “a relay station transmits a backhaul signal to a base station/base controller on a communication link” (Fig. 6 and column 17, lines 42 – column 18, lines 12). It would have been obvious to one having ordinary skill in the art, at the time the invention was made to modify the system of Baker as taught by Wallace. The motivation does so would be to achieve improving a method for synchronizing relay stations in a wireless communication system.

Regarding **claim 2**, Baker and Wallace disclose all the limitation, as discussed in claim 1. Furthermore, Baker further discloses that the signal is comprised of at least a traffic portion of said signal received from said mobile transceiver unit (abstract, Fig. 1, 2, and column 2, lines 30 – column 3, lines 18).

Regarding **claim 3**, Baker and Wallace disclose all the limitation, as discussed in claim 1. Furthermore, Baker further discloses that selectively controlling a signal transmitted power level to indicate said power level of said signal received from said mobile transceiver unit (column 1, lines 51 – column 2, lines 5, Fig. 2, 3, and column 4, lines 37 – column 6, lines 64).

Regarding **claim 4**, Baker and Wallace disclose all the limitation, as discussed in claim 1. Furthermore, Baker further discloses that that the selectively controlling a signal transmitted power level further comprises the step of (Fig. 2, 3):

generating power level data which is a digital representation of said power level as measured at said repeater (Fig. 1, 2, 5 and column 3, lines 8 – column 4, lines 56);

correlating said power level data to a predetermined transmitter power level associated with said power level (Fig. 1, 2, 5 and column 3, lines 8 – column 4, lines 56); and

controlling a transmitter of said repeater to transmit at said predetermined transmitter power level (Fig. 1, 2, 5, column 1, lines 51 – column 2, lines 5, and column 3, lines 8 – column 4, lines 56).

Regarding **claim 5**, Baker discloses that the base transceiver station (BTS) (103 in Fig. 1) assigns channels in said wireless communication system based on said indication of said power level (column 2, lines 29 – column 3, lines 18 and Fig. 1).

Regarding **claim 6**, Baker discloses that a base station controller (BSC) coupled to the base transceiver station assigns channels in said wireless communication system based on said indication of said power level (column 2, lines 29 – column 3, lines 18 and Fig. 1).

Regarding **claim 7**, Baker discloses that the step of transmitting further comprises the step of using four discrete power levels to provide an indication if the power level as measured by the repeater is too high, in range, below range, or requiring handoff (column 4, lines 36 – column 6, lines 40 and Fig. 3, 4).

Regarding **claim 8**, Baker and Wallace disclose all the limitation, as discussed in claims 1 and 7. Furthermore, Baker further discloses that receiving the signal at one of four discrete power levels at said base transceiver station and correspondingly

transmitting instructions to the mobile transceiver unit to decrease power, maintain power, boost power, or prepare for hand off to another base transceiver station or repeater (column 4, lines 36 – column 6, lines 64 and Fig. 3, 4).

Regarding **claim 9**, Baker and Wallace disclose all the limitation, as discussed in claim 1. Furthermore, Baker further discloses that delaying the step of transmitting the signal by a predetermined amount of time (column 4, lines 36 – column 6, lines 64 and Fig. 3, 4).

Regarding **claim 10**, Baker and Wallace disclose all the limitation, as discussed in claim 1.

Regarding **claim 11**, Baker and Wallace disclose all the limitation, as discussed in claims 1 and 2.

Regarding **claim 12**, Baker and Wallace disclose all the limitation, as discussed in claims 1 and 7.

Regarding **claim 13**, Baker and Wallace disclose all the limitation, as discussed in claims 1, 2 and 5.

Regarding **claim 14**, Baker and Wallace disclose all the limitation, as discussed in claim 1.

Regarding **claim 15**, Baker and Wallace disclose that the signal from an uplink channel received at one of said repeaters is from a pilot signal (Fig. 1 and column 2, lines 29 – column 3, lines 18).

Regarding **claim 16**, Baker and Wallace disclose all the limitation, as discussed in claim 1. Furthermore, Baker further discloses that delaying the step of transmitting the signal by at least one frame (column 4, lines 36 – column 6, lines 64 and Fig. 3, 4).

Regarding **claim 17**, Baker and Wallace disclose all the limitation, as discussed in claims 1 and 3. Furthermore, Baker further discloses that a transmitter for transmitting traffic and control signals to the repeater (column 3, lines 1 – column 4, lines 57 and Fig. 1, 3);

a processor (304 in Fig. 3) that is programmed to selectively configure the plurality of discrete power levels at which the repeater will transmit the signal (column 4, lines 36 – column 6, lines 64 and Fig. 3, 4).

Regarding **claim 18**, Baker discloses that the uplink communication channel is a channel containing signals from a mobile transceiver unit (column 4, lines 36 – column 6, lines 64 and Fig. 3, 4).

Regarding **claim 19**, Baker and Wallace disclose all the limitation, as discussed in claims 1 and 17. Furthermore, Baker further discloses that the processor is further programmed to use the control signal to control the power level of the mobile transceiver unit based on the plurality of discrete power levels measured on the signal at the receiver of the base transceiver station (column 4, lines 36 – column 6, lines 64 and Fig. 3, 4).

*Allowable Subject Matter*

3. Claim 20 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record fails to disclose “the processor is further programmed to decrease the power level of the uplink channel if the backhaul signal is transmitting at a first power level, maintain the power level of the uplink channel if the backhaul signal is transmitting at a second power level, increase the power level if the backhaul signal is transmitting at a third power level, and request that the uplink channel handoff to another repeater or base transceiver station if the backhaul signal is transmitting at a fourth power level” as specified in claim 20.

*Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chu et al. (US Patent number 5,890,055) discloses Connecting Cells and Microcells in a Wireless Communications Network.

Pravitz et al. (US Patent number 6,009,324) discloses Method and Device for Monitoring a Mobile Telephone Repeater.

Dilworth et al. (US Patent number 5,479,400) discloses Transceiver Sharing Between Access and Backhaul in a Wireless Digital Communication System.

Any response to this action should be mailed to:

Art Unit: 2684

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or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308-6606 (for informal or draft communications, please label  
"PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal  
Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the  
examiner should be directed to **John J. Lee** whose telephone number is **(703) 306-5936**.  
He can normally be reached Monday-Thursday and alternate Fridays from 8:30am-5:00  
pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, **Nay**  
**Aung Maung**, can be reached on **(703) 308-7745**. Any inquiry of a general nature or  
relating to the status of this application should be directed to the Group receptionist  
whose telephone number is (703) 305-4700.

J.L  
July 13, 2003

John J Lee

